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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,068	11/07/2001	Hans Broich	60,152-942	6194

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,068

Applicant(s)

BROICH ET AL.

Examiner

Jeffrey A. Shapiro

Art Unit

3653

NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-67, 71-73 and 75-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-67, 71-73 and 75-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/19/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 68-70 and 74 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/20/04.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 82 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is what the last line "separate true-to-type different supply chambers" means.

4. Claim 97 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is what is meant by the phrase "each has space on said rail means and aluminum..."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3653

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 56 and 93 are rejected under 35 U.S.C. 102(b) as being anticipated by Grafius (US 4,462,508). Grafius discloses the following.

- a. a basic supply module (20) including a supply chamber for storing elements and a forwarding device (24) proximate to said supply chamber and positioned to receive elements from an output of said supply chamber for moving elements from the supply chamber;
- b. a first interchangeable mechanical sorting device (40) of the type providing a continuous sorting of elements for producing a continuous element stream,
- c. said interchangeable mechanical sorting device located proximate to said forwarding device and positioned to receive the elements from said forwarding device (see figures 1 and 2),
- d. said first interchangeable mechanical sorting device being configured for receiving and sorting the first configured elements from said forwarding device and delivering only correctly positioned ones of the first configured elements to a transport device of the type providing a continuous flow of elements to a manufacturing system for transporting correctly positioned ones of first configured elements to the manufacturing system (note that the parts (100) of Grafius are transported from the trough (24) to the vibratory bowl (40), which sorts them, and sends them in an orderly fashion to chute (70) and gear (80)),

e. wherein said first interchangeable mechanical sorting device is removably mounted on said basic supply module and mechanically affixed thereto with a rapid disconnect coupler;

(Note that the supply module (20) and the vibratory bowl (40) appear to be separate from each other and that they appear to be removably mounted.

Note also that it is well known to bolt machinery down on bolts with mating nut-type fasteners, and that electric plugs and pneumatic connectors are also well-known to be easily removable.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 57-59, 71 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of MacDonald (US 4,436,197). Grafius discloses the supply system described above. Grafius does not expressly disclose, but MacDonald discloses baffle elements (28 and 52) and a hose (18) with pneumatic feed (see MacDonald, col. 2, lines 40-51.

MacDonald and Grafius are analogous art because they both deal with sorting parts with vibratory bowls.

Art Unit: 3653

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have installed baffle/trap element as well as a hose element in Grafius' vibratory bowl.

The suggestion/reason would have been to trap and remove incorrectly oriented parts or parts of a different design than those intended to be supplied by Grafius' bowl to other process points.

Regarding Claim 59, note that the vibratory bowl (40) of Grafius separates bent parts from straight parts—therefore, sorting two dissimilarly configured elements—note also that it is by definition that sorting parts would imply that there are two different types of parts, otherwise, they would not need to be separated.

Regarding Claim 76, note that MacDonald's pneumatic device implies the use of a valve to control air pressure.

9. Claims 60-63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of McMillan et al (US 3,123, 217). Grafius discloses the supply system described above. Grafius does not expressly disclose, but McMillan discloses a supply module with several supply chambers for differently configured elements to be stored. See McMillan, figure 2, noting the use of two supply chambers (22).

McMillan et al and Grafius are analogous art because they both deal with sorting parts with vibratory bowls.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the vibratory bowl of Grafius with multiple supply chambers.

The suggestion/reason would have been to provide more throughput by handling more types of parts.

10. Claims 64, 84 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of Chaparro et al. Grafius discloses the supply system described above. Grafius does not expressly disclose, but Chaparro discloses a supply module that is designed to be portable, as described in Claim 64.

Chaparro and Grafius are analogous art because they both deal with sorting parts with vibratory bowls.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have placed wheels on the vibratory bowl (58), or any other part of Grafius' system, such as supply (20) or supply unit (80, 90).

The suggestion/reason would have been to make such portions of Grafius' system portable to easily move them from place to place, where they may be needed or for ease of replacement during maintenance.

11. Claims 65-67, 73 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of Buchi et al (US 6,056,108). Grafius discloses the supply system described above. Grafius does not expressly disclose, but Buchi discloses an electrical control cupboard with mains connection and input/output units.

See Buchi, figure 5, element (84). Buchi further discloses a recognition device (40 and 60) to identify a part moving through the vibratory bowl system.

McMillan et al and Grafius are analogous art because they both deal with sorting parts with vibratory bowls.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used an electrical control cupboard with mains connection and input/output units in the vibratory bowl of Grafius.

The suggestion/reason would have been because the system of Grafius would obviously require power and electrical control. Otherwise, Grafius' system would not work.

It further would have been obvious to use a recognition device to determine the identity of a part moving through Grafius' bowl.

The suggestion would have been to enable Grafius' bowl to avoid jamming problems and to remove excess cycling of parts. See Buchi, col. 3, lines 16-45.

12. Claims 77 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of OSHA regulations 19.17.151(b)(5), 1910.95(a) and 1910.95(b)(1). Grafius discloses the supply system described above. Grafius does not expressly disclose a safety device concerning acoustic insulation or a screening device, such as a key or an emergency stop.

Art Unit: 3653

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated safety features such as acoustic insulation or an emergency stop, for example, in the system of Grafius.

The suggestion/reason would have been to adhere to government requirements mandating such equipment be used for noise abatement and for protecting operators and others from machine movement during operation.

13. Claims 79-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius. Grafius discloses the supply system described above.

Regarding Claims 79-83, note as follows.

f. said system includes a plurality of interchangeable mechanical sorting devices;

(Note that it would have been obvious to provide several sorting devices rather than one, so as to increase throughput.)

g. said forwarding device is oriented to receive like ones of first configured elements from said supply chamber and to distribute the like elements to be sorted to all of said interchangeable mechanical sorting devices;

(Note that the forwarding device of the system of Grafius behaves in this manner. Note again, that it would have been obvious to provide several paths to distribute to several sorting devices, as necessary.)

h. said forwarding device is oriented to receive a mixture of dissimilar elements from said supply chamber and to distribute the dissimilar elements to be sorted to all of said interchangeable mechanical sorting devices (again, note that dissimilar elements are sorted by Grafius);

i. said supply chamber includes convergent sidewalls terminating at a low point of said supply chamber and having at said low point at least one opening for permitting the passage therethrough of the elements to be sorted (note that trough (24) mates with the supply chamber (30) and continues below so as to form convergent sidewalls which terminate at the trough base (26), which is essentially a low point of the supply chamber);

j. each of said interchangeable mechanical sorting devices when affixed to said basic supply module are further interconnected to said basic supply modules with an electrical connection for electrical communication therebetween and a pneumatic communication therebetween (note that it would have been obvious to connect such items, otherwise, they would not work),

k. and further wherein said electrical and said pneumatic connections are facilitated with rapid disconnect connectors (again, note that ordinary three prong electrical plugs are considered to be rapid disconnectors);

14. Claims 86-92 and 94-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius in view of Rude et al (6,155,175). Grafius discloses the supply system described above. Grafius does not expressly disclose, but Rude discloses a supply module that is designed to be portable, which is placed on rails.

- l. a transport module for selective mating with an independent movement from said basic supply module to facilitate the removal and the installation of said interchangeable mechanical sorting device on said basic supply module (again, it is considered to be obvious to provide a mobile platform for making a stationary module portable);
- m. said basic supply module includes a set of rails thereon;
- n. said transportation module includes a set of rails thereon;
- o. said transport module includes a set of rails thereon;
- p. when said transport module is mated to said basic supply module, said sets of rails are in alignment such that said interchangeable mechanical sorting device is translatable along said rails to selectively reposition said interchangeable mechanical sorting device between said basic supply module and said transport module;

(Note that it is considered obvious to use rails to make a module mobile.

See, for example, Rude et al, which shows a vibratory hopper and associated forwarding devices (350), for example.)

q. said transport module includes a turntable upon which said set of rails is mounted, said turntable and said set of rails are of sufficient size to support two of said interchangeable mechanical sorting devices therealong, and said turntable is functional to rotate in at least 180 degrees about a vertical axis in a substantially horizontal plane;

(Again, note that it would have been obvious to provide a turntable so as to provide an easy way of changing direction for a rail equipped module).

r. said transport module includes a latch to secure said transport id basic supply module when said respective sets of rails are in alignment; (Again, note that it would have been obvious to provide a hitch to tie two modules together, as it is well known in the railroad industry to hitch two or more modules together. See also Bond, cited in the parent case and the IDS of this case, which shows a hitch (4) in figure 2.)

s. said basic supply module includes a single supply chamber; and

t. a plurality of interchangeably mechanical sorting devices and a plurality of transport units adapted to feed the same type and size of elements supplied by said forwarding device from said single supply chamber (see prior discussion);

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have placed rail-type wheels on the vibratory bowl (58), or any other part of Grafius' system, such as supply (20) or supply unit (80, 90) to be used on a rail-type system.

Note that a rail-type system can be construed as a functional equivalent to a non-railed system and that one ordinarily skilled in the art would have recognized that such a system provides the benefit of accuracy in placement of a wheeled module such as a vibratory bowl or supply unit as described in Grafius' system.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (703)308-3423. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (703)306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Application/Control Number: 10/037,068
Art Unit: 3653

Page 13

A handwritten signature in black ink, appearing to read 'Jeffrey A. Shapiro', with a stylized, sweeping flourish at the end.

Jeffrey A. Shapiro
Examiner
Art Unit 3653

December 27, 2004

A handwritten signature in black ink, appearing to read 'Donald P. Als', enclosed within a circular stamp.

DONALD P. ALS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600